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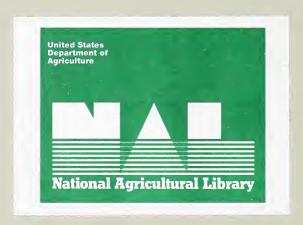
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Charcoal and Charcoal Briquette Production in the United States, 1961

U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
DIVISION OF FOREST ECONOMICS AND MARKETING RESEARCH

FEBRUARY 1963



F763

CHARCOAL AND CHARCOAL BRIQUETTE PRODUCTION IN THE UNITED STATES, 1961



U.S. Department of Agriculture Forest Service Division of Forest Economics and Marketing Research

PREFACE

This report presents data on the quantities of charcoal and charcoal briquettes produced in the United States during 1961; the principal markets for charcoal and charcoal briquettes; average selling prices; characteristics of charcoal kilns; plant capacity; the kind, quantity, and cost of materials consumed; and the location of manufacturing facilities. A similar report was published in 1957 under the title "Charcoal Production in the United States."

The survey, upon which this report was based, was conducted by the regional experiment stations of the Forest Service. Every effort was made to obtain through State Foresters, Extension Foresters, Service Foresters, County Agents, and other local sources of information a complete list of the charcoal producers in the United States in 1961. A mail canvass, with field followup of nonrespondents, was made of all producers on this list. The data in this report are thus based upon returns from essentially all known charcoal producers with estimates for a few nonreporting plants.

¹The term charcoal as used in this report refers only to the carbon material made from wood.

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CHARCOAL AND CHARCOAL BRIQUETTE PRODUCTION IN THE UNITED STATES, 1961

Charcoal Production Shows Substantial Rise Since the Mid-1950's

Charcoal production in the United States in 1961 amounted to 328,000 tons (table 1, fig. 1). This was 24 percent higher than production in 1956, the previous postwar peak year. It was also 42 percent above the 231,709 thousand tons reported by the Bureau of the Census for 1958. The Bureau of the Census estimate of production was based upon reports from only 129 plants-less than half of the plants believed to have been producing charcoal. However, the plants not covered by the Bureau of the Census were largely small family operations with no hired employees. Such plants probably accounted for only a small part of total production.

Although charcoal production in 1961 was considerably above the levels prevailing in the 1950's, it was still substantially below output in the early 1900's when charcoal was widely used in the iron and chemical industries and for cooking and heating in slum areas.

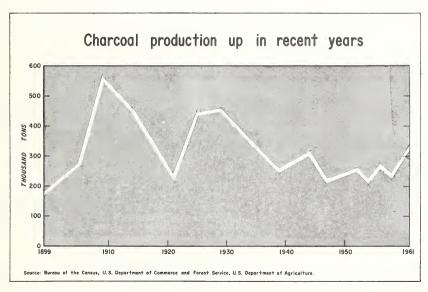


Figure 1

Domestic Producers Supply Nearly All Charcoal Needs

In 1961 about 10,090 tons of charcoal were imported into the United States, largely from Ceylon and Mexico (table 2). Exports, mostly to Canada, amounted to 4,748 tons. Net imports were thus 5,342 tons—a relatively small part of total U.S. needs.

98 Percent of Charcoal Production In the East

Charcoal production is concentrated in the East (table 3, fig. 2). In both 1956 and 1961, the plants located in this section produced 98 percent of all the charcoal manufactured.

In 1961 the Southern and Central regions with 29 percent and 26 percent, respectively, of total output were the two most important producing regions. In 1956, the Lake Region with 37 percent of total production and the Southern Region with 28 percent were the largest producing areas. Output increased in all regions, except the Lake Region, between 1956 and 1961. The rise was particularly rapid in the Central Region where production nearly tripled.

In 1961 there were 297 active charcoal producers.-57 more than in 1956. As illustrated in the list of producers (page 17) and map 1, these were also concentrated in the East, although nearly 10 percent were in the West, mostly in California. The largest part of the increase in the number of charcoal producers between 1956 and 1961 was in the Southern and Central regions. A rather substantial decline occurred in the number of producers operating in the Northeast and in California.

Large Producers Account for Most of Charcoal Output

In 1961, 13 large producers, each producing more than 5,000 tons of charcoal, accounted for 56 percent of total production (table 4, fig. 3). At the other extreme, 126 producers, who produced less than a hundred tons each, accounted for only about 1 percent of total output. About 40 percent of these small plants were located in the Southern Region.

Nearly 2,000 Converting Units in Charcoal Plants in 1961

There were 1,977 converting units in charcoal plants in 1961 (table 5). These included 262 brick kilns, 805 concrete and masonry block kilns, 430 sheet steel (beehive type kilns) and 480 "other" units. The "other" units category includes retorts, ovens, and a wide variety of improvised chambers that have been adapted for charcoal production.

Ninety-four percent of all converting units were in the East. The Central Region with 595 units lead all others, followed by the Southeast Region with 444 and the Southern with 429.

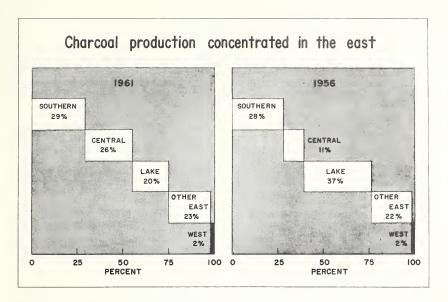


Figure 2

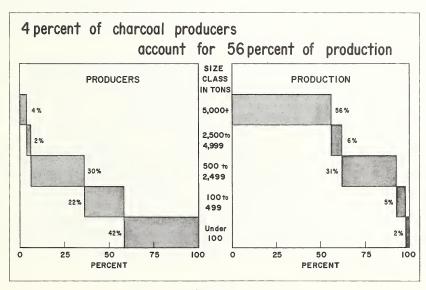


Figure 3

Large Amounts of Excess Capacity in All Regions

The potential annual capacity, i.e., the quantity of charcoal that could be produced in a 310-day operating year, of all converting units in 1961 was 795,920 tons (table 5). This was about 2.4 times production. Part of the excess capacity, however, is in small plants that are intended to operate only during the peak periods of demand in the summer or during the off season for other employment.

About 40 percent of total capacity was in the Southern Region. Another 5 percent of capacity was in the West. The remaining 55 percent was about equally distributed among the Northeast, Southeast, Lake and Central regions.

About 55 percent of total capacity was in the "other" unit category, mostly in retorts and ovens. Another 27 percent was in concrete and masonry block kilns, 12 percent in brick kilns, and 6 percent in steel kilns.

Potential capacity was much larger than production in all regions (fig. 4). There was, however, considerable variation among regions. In the Lake and Central regions production was about two thirds of potential capacity. In contrast, less than a third of the capacity in the Southern Region was utilized.

Most Charcoal Converting Units Are Small

Of the 1,977 converting units reported in 1961, 33 percent had a capacity of less than a ton of charcoal percarbonizing cycle. Another 26 percent had a capacity of from 1 to 5 tons, 36 percent from 6 to 25 tons, and 5 percent had a capacity more than 25 tons (table 6). Over half of all units with less than 1-ton capacity were in the Southeast Region, Most of the large units (over 25 tons) were in the Southern and Central regions.

Over Half the Charcoal Sold by Charcoal Producers Goes to Briquetting Plants

Charcoal producers sold 177,360 tons of charcoal in 1961 (table 7, fig. 5). Of this total, 51 percent went to briquetting plants, 28 percent to jobbers, 18 percent to industrial users, and 3 percent to other miscellaneous purchasers.

Sales to briquetting plants were particularly large in the Central Region where they accounted for 64 percent of total sales. In the Northeast, on the other hand, nearly all of the charcoal sold went to jobbers and industrial users. Industrial sales, largely to chemical plants, were also important in the Southeast.

As illustrated in figure 5, sales to briquetting plants increased roughly 4 times between 1956 and 1961. In contrast, sales to industrial users were only about a third as high. Apparently charcoal is continuing to lose its metalurgical and chemical markets, with increased domestic use more than offsetting such losses.

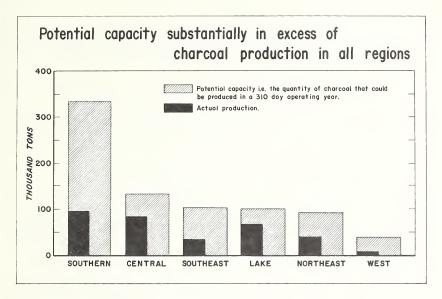


Figure 4

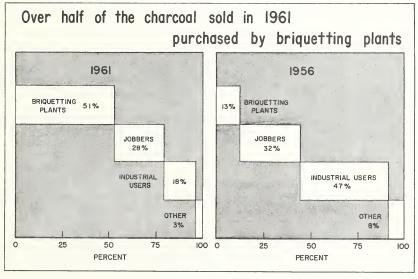


Figure 5

Wide Range in Selling Price of Charcoal

As indicated in the following tabulation, the average selling price of unscreened charcoal in 1961 ranged from a low of about \$32 per ton in the Southeast to a high of \$64 in the Northeast.

Region	Average price per ton
Northeast	
Southeast	32
Lake	40
Central	33
Southern	33
California	46

In most regions the selling price of screened lump was about \$15 per ton higher than unscreened.

Because of handling, packaging, and other associated costs, the average selling price of packaged charcoal was considerably higher than that sold on a bulk basis. It ranged between a low of about 3 cents per pound (\$60 per ton) in the Southeast and Central regions to 5.5 cents per pound (\$110 per ton) in the Northeast.

No production costs were obtained in this survey. There were reports, however, that the industry was highly competitive and that the profit margins of some producers in certain areas were small. Large and medium-sized plants with efficient equipment and marketing organizations apparently had a competitive advantage over small plants.

Roundwood Composed Most of the Wood Consumed in Charcoal Plants in 1961

In 1961, about 509,000 cords of roundwood; the equivalent of 125,755 cords of slabs and edgings; and 13,650 cords of sawdust, shavings, and other fines; and 64,150 tons of pine stumps were consumed in charcoal plants (table 8).

Roundwood was used in all regions, with the heaviest use in the Central, Southern, and Lake regions. Slabs and edgings were utilized in all eastern regions. Pine stumps were used only in the Southeast.

Residues Cheaper than Roundwood

The average delivered price of roundwood in 1961 was \$10.10 a cord--about 40 percent above the average of \$7.30 for slabs and edgings and more than 5 times the average of \$1.80 paid for sawdust, shavings and other fines (table 8).

Average delivered prices of both roundwood and slabs and edgings varied considerably among regions. The average for roundwood, for example, ranged from \$6.60 per cord in the 'Other West' to \$13,20 in the Lake Region. The average delivered price of slabs and edgings ranged from \$4.40 per cord in the Southeast to \$8.90 in the Southern Region.

On the average, a little over 2 cords of wood are required to produce a ton of charcoal. Average wood costs per ton thus ranged from about \$15.00 for slabs and edgings to more than \$20.00 for roundwood. These costs represented a substantial part of the prices received per ton of charcoal sold in bulk.

235, 640 Tons of Charcoal Briquettes Produced in 1961

In 1961, 50 plants produced 235,640 tons of charcoal briquettes (table 9, fig. 6). Forty-four of the plants and 97 percent of the production was in the East, largely in the Southern, Lake, and Central regions (see list of producers page 26 and map 2).

Jobbers Purchased Three Fifths of the Charcoal Briquettes Sold

Sales of charcoal briquettes were 232,090 tons in 1961 (table 10). Of this total about 58 percent was sold to jobbers, 30 percent to chain stores, and 12 percent to other miscellaneous purchasers. Sales to jobbers were particularly large in the Southern and Lake regions.

There are no data on the consumption of charcoal briquettes by end use. Presumably, however, nearly all of the briquettes sold to jobbers and chain stores were consumed in domestic uses.

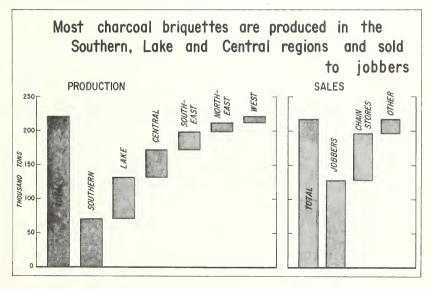


Figure 6

The weighted average selling price of charcoal briquettes sold in bags ranged from a low of about 4 cents per pound to a high of about 4.6 cents.

61 percent of the Charcoal Used in Briquetting Produced in Own Plant

Of the 226, 880 tons of charcoal used in briquetting in 1961, about 61 percent was produced in charcoal plants owned or controlled by the briquetting plant (table 11). The remaining 39 percent, some 88,610 tons, was purchased from independent producers. There was considerable variation in the sources of charcoal among regions. Most of the charcoal briquetted in the Northeast, Lake, and Southern regions was produced by the briquetting plant. On the other hand, most of the charcoal briquetted in the Central Region came from independent suppliers.

The average price paid for charcoal purchased from independent suppliers in the East ranged from \$34.40 per ton in the Southern Region to \$41.70 per ton in the Lake Region. The average for the United States was \$35.50.

21,000 Tons of Briquettes Produced From Nonwood Sources

There were four plants making briquettes from nonwood materials, such as lignite and agricultural residues, in 1961. These plants produced about 21,000 tons of briquettes. Total briquette production in the United States in 1961 thus amounted to 256,640 tons with charcoal briquettes produced from wood accounting for 92 percent of the total.

APPENDIX A

TABLE 1.--Charcoal production in the United States, selected years, 1899-1961

Year	Production	Year	Production
1899	Tons 171,543 266,701 554,785 448,278 227,033 438,358 453,550 328,014	1939. 1944. 1947. 1952. 1954. 1955. 1956. 1958.	Tons 250,780 306,192 213,660 251,784 214,481 237,770 264,990 231,709 328,000

Source: 1955, 1956, and 1961, Forest Service, U.S. Department of Agriculture. All other years Bureau of the Census, U.S. Department of Commerce.

TABLE 2. -- Imports and exports of charcoal in the United States, 1952-61

Year	Imports	Exports
1952	Tons 3,290 3,328 5,806 6,521 13,522 13,082 7,202 11,338 11,471 10,090	Tons (1) (1) (1) (2,665 (1) 2,486 2,380 2,891 4,038 4,748

¹ Not available.

Source: Bureau of the Census, U. S. Department of Commerce. U. S. Imports of Merchandise for Consumption and U. S. Exports of Domestic and Foreign Merchandise. Annual reports.

TABLE 3.--Number of active producers and charcoal production in the United States, by region, 1956 and 1961

D 4	195	66	196	1
Region	Producers	Production	Producers	Production
	Number	Tons	Number	Tons
Northeast	65	32,000	48	39,150
Southeast	46	26,890	45	34,570
Lake	12	96,830	15	67,120
Central	42	29,230	71	84,420
Southern	29	74,260	91	95,410
California	39	4,650	20	5,410
Other West	7	1,130	7	1,920
Total	240	264,990	297	328,000

TABLE 4.--Number of active producers and charcoal production in the United States, by production size class and region,

	5,000 tons and over	Pro- duction	Tons	(1)	(1)	.(1)	34,670	63,310	!	1	183,590
	5,000 and	Pro- ducers	Number	(1)	(1)	(1)	4	4	1	1	13
	2,500 to 4,999 tons	Pro- duction	Tons	(₁)	1	(1)	(1)	(1)	1	ŀ	21,010
Ω N	2,500 t	Pro-	Number	(1)	;	(1)	(1)	(1)	ŀ	1	9
Production size class	500 to 2,499 tons	Pro- duction	Tons	16,520	16,210	5,510	33,940	24,170	(1)	(1)	101,210
roduction	500 t	Pro-	Number	IJ	21	4	8	25	(1)	(1)	88
P	100 to 499 tons	Pro- duction	Tons	2,340	3,060	1	8,240	2,160	1,650	(1)	17,650
	100 to	Pro-	Number	11	14	1	22	10	5	(1)	79
	Under 100 tons	Pro- duction	Tons	350	430	300	925	2,270	530	06	4,540
	Under]	Pro-	Number	20	18	₩	ย	51	13	9	126
	Total	Pro- duction	Tons	39,150	34,570	67,120	84,420	95,410	5,410	1,920	328,000
	To	Pro-	Number	48	45	15	7.1	16	20	7	297
	Region			Northeast	Southeast	Lake	Central	Southern	California	Other West	Total

1 Withheld to avoid disclosing figures for individual producers.

TABLE 5.--Number of charcoal converting units and potential annual capacity¹ in the United States, by type of unit and region. 1961

by type of unit and region, 1961	Total converting Brick Concrete and Steel (beehive) Other	Units Potential Kilns Potential Kilns Potential Kilns Capacity Capacity Capacity Capacity Capacity Capacity Capacity	Number Tons Number Tons Number Tons Number Tons Number Tons	294 91,310 36 17,580 50 12,700 165 20,880 43 4	444 102,770 28 10,470 34 17,170 108 18,250 274 56,880	93 100,050 11 11,240 45 11,370 4 310 33 77,130	595 131,260 102 33,080 350 90,020 129 5,560 14 2,600	429 332,930 50 13,010 264 68,540 13 3,450 102 247,930	103 22,650 21 6,560 62 14,190 11 970 9 930	19 14,950 14 4,460 5 10,490	1 977 794 920 26 JAN 804 213 000 J30 J9 J9 J80 J34 110
		Region		Northeast	Southeast	Lake	Central	Southern	California	Other West	Total

¹ Potential annual capacity is defined as the quantity of charcoal that could be produced in a 310-day operating year. Source: Forest Service, U. S. Department of Agriculture.

TABLE 6.--Number of charcoal converting units in the United States, by size class and region, 1961

	Total	Size clas	s (charcoal	per carbonia	ing cycle)
Region	converting units	Under 1 ton	1 to 5 tons	6 to 25 tons	Over 25 tons
	Number	Number	Number	Number	Number
Northeast	294	142	101	44	7
Southeast	444	353	24	58	9
Lake	93	4	56	22	11
Central	595	131	58	384	22
Southern	429	17	242	122	48
California	103		37	66	
Other West	19		9	10	
Total	1,977	647	527	706	97

TABLE 7. -- Charcoal sold in the United States, by type of purchaser and region, 1961

				Ty	pe of purch	naser		
Region	Total	T 13		Industr	ial users		Briquetting	
		Jobbers	Total	Metal	Chemical	Other	plants	Other
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Northeast	20,450	9,830	8,840	3,900	3,580	1,360	1,260	520
Southeast	22,470	510	11,400	3,690	7,710		10,430	130
Lake	12,180	3,860	1,400	210	1,170	20	6,910	10
Central	74,550	10,980	5,830	3,620	310	1,900	57,660	80
Southern	42,910	21,730	4,280	770	3,460	50	12,700	4,200
California.	3,980	2,950					750	280
Other West.	820	640	50	30		20	60	70
Total	177,360	50,500	31,800	12,220	16,230	3,350	89,770	5,290

TABLE 8.--Quantity and weighted average delivered price of wood materials consumed in charcoal production in the United States, by kind of material and region, 1961

tumps	Average	Dollars	;	11.10	1	1	1	1	1	11.10
Pine stumps	Tons	Number	1	64,150	1	1	1	1	1	64,150
shavings, r fines	Average price	Dollars	1	1.90	1	1	1	1	.75	1.80
 Sawdust, shavings, and other fines	Cords	Number	1	12,980	1	ł	1	1	670	13,650
Slabs and edgings	Average price	Dollars	8.20	4.40	7.30	00.9	8.90	1	-	7.30
Slabs em	Cords	Number	22,995	15,690	34,000	20,930	32,140	1	1	125,755
Roundwood	Average price	Dollars	11.90	9.10	13.20	7.10	10.40	13.10	09.9	10.10
Round	Cords	Number	34,750	21,900	131,180	172,520	137,230	10,110	1,310	509,000
C	ueg 1 ou		Northeast	Southeast	Lake	Central	Southern	California	Other West	Total

TABLE 9. -- Number of active producers and charcoal briquette production in the United States, by region, 1961

Region	Producers	Production
	Number	Tons
Northeast	5	14,640
Southeast	8	25,870
Lake	4	61,090
Central	7	55,750
Southern	20	70.350
California	(1)	(1)
ther West	(1)	(1)
Total	50	235,640

¹ Withheld to avoid disclosing figures for individual producers.

TABLE 10. -- Charcoal briquettes sold in the United States, by type of purchaser and region, 1961

Region	Total	Jobbers	Chain stores	Other
	Tons	Tons	Tons	Tons
Northeast	13,710 24,630	7,400 7,800	3,840	2,470
Lake	60,880	40.890	13,490 15,960	3,340 4,030
Central	55,030	23,660	18,160	13,210
Southern	69,980	48,680	17,240	4,060
California	3,660	3,110	50	500
Other West	4,200	4,200		
Total	232,090	135,740	68,740	27,610

TABLE 11.--Source of charcoal used in briquetting plants, and weighted average delivered price of charcoal purchased in the United States, by region, 1961

	Source of charcoal used in briquetting			Average price per ton of	
Region	Total	Produced in own plant	Purchased from other suppliers	charcoal purchased from other suppliers	
	Tons	Tons	Tons	Dollars	
Northeast	14,700	12,500	2,200	40.50	
Southeast	23,520	10,180	13,340	34.60	
Lake	57,900	50,870	7,030	41.70	
Central	53,420	1,430	51,990	34.50	
Southern	68,830	58,990	9,840	34.40	
California	4,310	1,200	3,110	44.00	
Other West	4,200	3,100	1,100	32.00	
Total 226,880		138,270	88,610	35.50	

APPENDIX B

CHARCOAL PRODUCERS IN THE UNITED STATES, 1961

(This list may not include all producers and is subject to change as plants are sold or moved and as new plants are constructed).

State, name, and producer No.

See footnotes page 25.

Post office address 1

NORTHEAST

Connecticut: 1. Connecticut Charcoal Co., The	P. O. Box 195, Stafford Springs (Union) 650 Main Street, Hartford (Cobalt) P. O. Box 103, Haddam R. D., Moosup (Sterling) Durham Road, Madison North Stonington Litchfield
Maine: 8. Amherst Lumber Co. ³	Amherst West Paris Coopers Mills
Maryland: 11. Eastern Shore Wood Products Co 12. Eppler Wood Products Corp. ³ 13. Maryland Department of Forests & Parks	Box 97, Princess Anne P. O. Box 12, Dorsey State Office Building, Annapolis (Brandywine)
Massachusetts: 14. Ambler Lumber Co. 15. Curtis Lumber Co. 16. Howard Bros. Charcoal Co. 17. New England Carbon Co., Inc.	Box 93, Bellingham Old Princeton Road, Hubbardston Star Route, Montague (North Leverette) P. O. Box 188, Pittsfield (Hancock)
New Hampshire: 18. Fenton, Paul J., Jr. 3	R.D. #1, Andover R.D. #1, Goffstown (Dunbarton) Thousand Acres, West Franklin 3 N. State Street, Concord (Boscawen) Concord (Allenstown) West Rumney
New Jersey: 24. Payne, Herbert W. & Sons	Box 57, Lacey Road, Whiting

NORTHEAST (continued)

1.01(1111111111111111111111111111111111	on unada,
New York: 25. B & C Charcoal Co. 26. Chiloway Charcoal, Inc. 27. Duell, A. C. & Sons ³ 28. East Walden Charcoal Co. ³ 29. Emerson Fuel Co., Inc. 30. Flower City Charcoal Co. 31. Glowell Charcoal.	Peck Hill Road, South Ostelic Roscoe (Horton) R.D. #1, Oswego East Walden 545 Lyell Avenue, McConnellsville 135 Colvin Street, Rochester 11 Hampton Road, Marlboro (West Marl-
32. Heartwood Products Co. 33. Hutton, William 3	boro) Box HH, Tupper Lake Booneville (McKeever) 135-149 Colvin Street, Rochester 11 (Dolgeville)
35. Northeastern Products Co. ³ 36. Potsdam Charcoal Co., Inc. 37. Reynolds Lumber Co. 38. Slawson Lumber Co., Inc. 39. Smiley Bros. ³ 40. Thomas, Fenimore 41. Timberland Products Co., Inc. 42. Weinheimer, Arthur J. 43. Wicks, Verne A.	Warrensburg Box 87, Potsdam Wells Hunt Mohonk Lake Star Route #2, Oswego Stamford R.D. #1, Old Chatham Harrisville
Pennsylvania: 44. Bradford Wood Products Co	Box 194, Bradford (Marvindale) R.D. #2, Canton 75 Woodlawn Drive, Dallas c/o E. Greenfield, Greeley P. O. Box 45, Brookville (Fort Barnett) Laceyville R.D. #1, Bowmansville Sergeant Box 176, Bradford (Custer City) Morris P. O. Box 194, Bradford (Port Allegany)
Rhode Island: 55. Hall, Edwin N.³ 56. James Peckham Charcoal	R.D. #1, Foster R.D. #2, Snake Hill Road, North Scituate (Foster)
57. Miner, Layton H. & Sons	R.D. #2, Westerly 119 S. Main Street, Moosup (Foster)
West Virginia: 59. Bland, D.E. & Sons 60. E. C. Grimm Lumber Mfg. Co 61. Hardwood Products	Thomas Terra Alta Marlinton
62. Hughes Smokeless Co. 63. Kingsford Chemical Co. 64. Roseville Charcoal & Mfg. Co. ²	#1 Broadway, N. Y., N. Y. (Belington) Parsons Box 1188, Zanesville, Ohio (Bentree and Swiss)
65. Sanders, Roy K., & Sons ³ 66. Smith Lumber Co	Rowlesburg (Macomber) Livingston Avenue, Elkins (Macomber)

See footnotes page 25.

SOUTHEAST

Florida:	
67. Black Diamond Charcoal	Bayard
Corp. ²	P. O. Box 137, Gainesville Box 777, Dunnellon Cross City
Georgia: 71. Griffin, Marion	122 Walker, Augusta Horton Drive, Augusta P. O. Box 2233, W. 14th Street, Rome
North Carolina: 74. Alexander, Robert 75. Bladen Lakes State Forest 76. Blue Ridge Charcoal 77. Boger, Nelson. 78. Bordeaux, William 79. Cody, Clyde. 80. Gallimore, A. A. 81. Gallimore, Ernest 82. Howell, George 83. Howell, John F. 84. McIntyre, J. C. & R. L. 85. Nall, L. W. 86. Peterson & Pittman 87. Roach, Arthur R. 88. Roberts, Roy 89. Rome Charcoal Corp. 90. Spruce Pine Charcoal. 91. Virginia-Carolina Lumber Corp. 92. Wall, Auburn 93. Williamston Charcoal Co. 94. Williford, J. A. 95. Yow, E. O.	Black Mountain Elizabethtown c/o Lat Westall, R.D., Spruce Pine Graham Garland Carthage 1120 Graham Street, Burlington Box 185, Denton Route #2, Cherryville R.D., Old Fort Carthage Route #1, Cherryville Troy Walnut Colon R.D., Spruce Pine Box 616, Warrenton Carthage Box 586, Williamston Route #3, Windsor Seagrove
South Carolina: 96. Dargan Lumber Mfg. Co 97. Geiger, Hayward 98. T. S. Ragsdale Co., Inc. ²	Conway Route #1, Box 72 B, Irmo P. O. Box 38, Lake City
Virginia: 99. Big "M" Charcoal Co	Box 106, Farmville 22nd & Cary Streets, Richmond Branchville 301 High Street, South Hill P. O. Drawer CF, Williamsburg Wylliesburg Kenbridge Kenbridge Brookneal P. O. Box 205, Saluda Box 33, Clarement Route #4, Salem Woodford

See footnotes page 25.

LAKE

LAKE	
Michigan: 112. Cliffs Dow Chemical Co. ² 113. Duke Tree Farms. 114. Kingsford Chemical Co. ²	Wright Street, Marquette Route #1, Manistique Iron Mountain (Kingsford)
Minnesota: 115. Benson, Wallace	Isle Route #1, Palisade Isanti Leonard
Wisconsin: 119. Badger State Charcoal Co. 120. Boerner Charcoal Plant. 121. Durand Charcoal Co., Inc. 122. Gersmehl, Edward A. 123. Grotenhuis Bros. 124. Harrisville Charcoal Co. 125. Surbaugh, John. 126. Van Ert Forest Products	P. O. Box 281, Black River Falls Route #2, Wisconsin Dells (Adams) Durand 916 N. 7th Street, Sheboygan Cedar Grove Westfield Star Route, Frederic Route #2, Wisconsin Dells
CENTRA	L
Illinois: 127. Ace Charcoal Producers, Inc. 128. B. E. Moses Charcoal Co. 129. Berger Bros., Inc. 130. Metcalf Charcoal Co. 131. Murphysboro Charcoal Co. 132. Rock River Sawmill 133. Scheck, Joe 134. Timberland Charcoal Co.	4548 Shaw Avenue, St. Louis, Mo. (Campbell Hill) Route #1, Cypress (Oberta Switch) 1176 N. Cherry Avenue, Chicago (Belknap) Mt. Vernon P. O. Box 453, Murphysboro E. Main Street, Rockton Route #3, Princeton (DePue) Route #7, Mulford Road, Rockford (Boone Co.)
Indiana: 135. Hope Lumber Co	P. O. Box 21, Hope
Kentucky: 136. Kingsford Co	P. O. Box 1033, Louisville (Haldeman & Haywood) Route #1, LaCenter (Bandana)
Missouri: 138. Allied Charcoal Co. 139. Barnhart Charcoal Co. 140. Berhorst, Ben. 141. Black River Charcoal Co. 142. Carty, Earl ⁴ .	Lesterville Meta Freeburg Lesterville Salem

See footnotes page 25.

CENTRAL (continued)

Missour	ri (con't.):	
143.	C. E. Jenkins Coal & Charcoal Co	318 E. Miller Street, Jefferson City
		(Centertown)
144.	Cobb-Eiceman Products Co	Zalma
145.	Copeland Charcoal Co	Reynolds
146.	Craig Charcoal Co	Summersville
	Cupples Co. ²	7800 Bonhomme, St. Louis (Salem)
148.	Dailey & Robertson Charcoal Co	Winona
149.	Day, R. C	Bradleyville
150.	Fordell Development Co., Inc	Wesco (Cooks Station)
151.	Gainesville Charcoal Co	c/o J. R. Evans, Gainesville
152.	Greer Spring Co	20 Brentmoor, St. Louis (Alton)
	Hardwood Charcoal Co.4	Steeleville
154.	Hellmuth, George 4	Round Spring
155.	Henley Charcoal Co	Meta (Henley)
	H&F Charcoal Co	Salem
157.	Hobson Charcoal Co.4	Salem
	Huffman, Alva4	Rolla
	Iberia Charcoal Co	Meta (Iberia)
	James & Terry Charcoal Co	Vienna
161.	J&M Charcoal Co	Meta
162.	Kingsford Co.2	P. O. Box 1033, Louisville, Ky. (High
	-	Gate)
163.	Langworthy Charcoal Co	320 Orchard Street, Salem
164.	Lennox Charcoal Co	Hobson Star Route, Rolla
165.	Luecke Charcoal Co	Rich Fountain (Westphalia)
166.	Mackie, Roy A.4	Salem
167.	McDonald Charcoal Co	Dwight Bldg., Kansas City (Argyle)
168.	Meadows, Clifford	Branson
169.	Morlen, Ray	P. O. Box 37, Ellsinore
170.	Neosho Charcoal Products Co	Route #4, Neosho
171.	Noblett, Gene	Belle (Koenig)
172.	P&C Charcoal Co	Meta
173.	Parry Charcoal Co	Box 134, St. James
174.	Pringle Charcoal Co	Route #1, Greenfield
175.	Ridenhour Charcoal Co	Belle
176.	Ripka Charcoal Co	Meta
	Royal Oak Charcoal Co	Route #2, Birchtree (Montier)
178.	Skaggs, M. B.	Kirbyville
179.	S&S Charcoal Co	Box 151, Branson (Bradleyville)
180.	Stegeman Charcoal Co	Route #3, Jefferson City (Schubert)
181.	Stockton, W. B	Belle
182.	Sugar Creek Charcoal Co	Meta
183.	Tarvid Charcoal Co	Centerville (Corridon)
184.	Timber Charcoal Co	Gladden (Timber)
185.	Timber Products, Inc	Oakland Star Route, Lebanon
186.	Trumac Charcoal Co	Vienna (Lecoma)
187.	Wallace, Aude	Longrun
188.	Weed, D. J	Argyle
189.	Werdehaus Charcoal Co	Box 157, Owensville
	Wieburg Charcoal Co	Freeburg (Salem)
191.	Wulff Charcoal Co	Vienna (Licking)

See footnotes page 25.

CENTRAL (continued)

OBIVITAL (COL	itilided)
Ohio	
192. Cherokee Charcoal Co. 193. Magic Star Charcoal Co. ²	P. O. Box 266, Oak Hill P. O. Box 14, New Lexington 1223 N. Columbus Street, Lancaster (Nelsonville)
195. Roseville Charcoal & Mfg	P. O. Box 1188, Zanesville (Byesville) Route #3, Oak Hill Box 116, Oak Hill
SOUTHER	RN
Alabama: 198. Bazzell, M. C. 199. Bentley, John L. 200. Boggs, Alvin. 201. Coosa Charcoal Co., Inc. ² 202. Fancher, Wiley ² . 203. W. A. Belcher Lumber Co. 204. Wakefield Products Co.	Route #2, Box 440, Deatsville Box 133, Rockford Route #2, Delta P. O. Box 73, Rockford Route #1, Sardis Box 1831, Birmingham (Simmsville) Russellville (Fairview)
Arkansas: 205. Arkansas Charcoal Co.² 206. Baron Charcoal Co.² 207. Bruner Ivory Handle Co. 208. Bull Mt. Charcoal Enterprise 209. Crosset Chemical Co.² 210. Hickory Ridge Charcoal 211. K-V Charcoal Co., Inc. 212. Martin, Ray & Son 213. Ozark Charcoal Co. 214. Ozark Enterprise Charcoal 215. Polk County Enterprises, Inc. 216. Promised Land Charcoal Co. 217. Tac Enterprises, Inc.	Paris Route #2, Vian, Okla. (Gentry) P. O. Box 38, Hope Route A, Flippin P. O. Box 271, Crossett P. O. Box 16, Kingston P. O. Box 26, Lewisville Mountain Home Ozark Gassville Mena (Hatfield) Route #1, Mountain Home Mountain Home (Oakland)
Louisiana: 218. Home Charcoal Co., Inc. ^{2 4}	P. O. Box 814, Alexandria
Mississippi: 219. Attala Land & Wood Products Co 220. Black Creek Charcoal Co 221. Blackjack Charcoal Co 222. Dixie Farms 223. Dizzy Dean Enterprises, Inc. 2 5 224. Eaton & Clark 225. Prince Lumber Co.	Kosciusko Route #5, Lexington P. O. Box 344, Bruce Satartia Pachuta Box 84, Taylorsville Shugulak
Oklahoma: 226. Alabama Charcoal Co. 227. Carter Charcoal & Carbon Co. 228. Conley, Floyd. 229. Flying 13 Ranch 230. Kirkland, O. D. 231. Robertson, Eli	Route #2, Westville (Baron) Box 269, Coalgate (Village of Phillips) Box 411, Marble City Vian Route #2, Coalgate Route #1, Gore

See footnotes page 25.

SOUTHERN (continued)

Oklahoma (con't.):		
		1516 Liberty Bank Bldg. Oklahoma City (Sallisaw)
233. Western Barbe	ecue Supply Co., Inc. ²	Box 111, Sallisaw
ennessee:		
	1	Box 537, Jamestown
		Spencer
		Spencer
		Route #3, Monterey
		Mountain Route, Spencer
	ts Chemical Co. ²	Route #5, Crossville (Linary) Box 6745, Hollywood Station, 2753 Chelsea Avenue, Memphis
241. Garrison, V. D),	Route #1, Crossville
242. Geer, Luther.		Mountain Route, Spencer
243. Green, William	n	Route #1, Bloomington Springs
244. Harp, Charlie		Route #6, Cookeville
245. Hassler, Virgi	1	Route #5, Crossville
246. Hedgecough, O	rb	Route #2, Baxter (Nash Community)
247. Hicks, Horace		Route #1, Clarkrange
248. Houston, John		Route #5, Box 233, Crossville (Linary)
249. Jack Daniel Di	stributors	Lynchburg
		102 Hoyt Street, Monterey (Cliff Springs)
251. Kerley, Albert		Route #5, Crossville
252. Kerley, Carl		Route #5, Crossville
		Spencer
	n ² 5	3813 Nathaniel Road, Knoxville (Hunts-ville)
	1	Route #3, Monterey
	r	Monterey
		Mountain Route, Spencer
		Route #5, Cookeville
		Route #1, Spencer
		Monterey
		Route #2, Baxter
	illard	Monterey
	1	Route #7, Sparta
	1	Route #1, Box 118, Crawford
	ohn	Route #1, Cookeville
		Route #6, Cookeville
		Spencer
	ur	Route #1, Spencer
	••••••	Route #1, Clarkrange
		Route #5, Box 386, Crossville (Stephens Gap)
	1	Spencer
	nel	Route #3, Monterey
		Cookeville
274. Tennessee Pr		2611, West End Avenue Nashville,
		(Lyles-Wrigley)
		Mayland
	rd	Route #5, Crossville
277. Walker, James	rles J	Route #5, Crossville (Linary) Route #3, Monterey

See footnotes page 25.

SOUTHERN (continued)

SOUTHERN (continued)				
_				
28 0. 281.	B. & B. Charcoal Co	P. O. Box 314, Flatonia Navasota Route #1, Box 175, Roanoke 3810 Westheimer Road, Houston (Col- lege Station)		
284. 285. 286. 287.	Lone Star Charcoal Co. ² Lone Star Charko ⁶ McCombs Charcoal Co. Moore Charcoal Co. ² National Charcoal Co. Smith, Derwood ⁶	P. O. Box 546, Quitman P. O. Box 1551, Wells Pittsburg (Dukes Chapel Road) Route #10, Box 120, Tyler P. O. Box 4123, San Antonio (Muldoon) P. O. Box 1077, Wells		
	OTHER WE	ST		
Arizona				
289.	Charkete Products Co	Redington 2938 N. Fairview Road, Tucson		
Kansas: 291. 292.	Chetopa Charcoal Co. ²	Chetopa Chetopa		
Montana 293.	: Big Bear, Inc. ²	Pablo		
Oregon: 294.	Jigg's Charcoal Co	Route #1, Cave Junction		
	D. & C. Charcoal Co	P. O. Box 727, Cedar City Cedar City		
	ton: Elbe Charcoal King County Charcoal, Inc. ³	Box 334, Elbe P. O. Box 524, Auburn		
	CALIFORN	AIIA		
300. 301. 302. 303. 304.	ia: Alvarez, Frank Bar-B-Glo Co Bergman, Louis Bidstrup, Walter Busi, Jim Calaveras Firewood Corp. California Charcoal Products	Route #1, Box 155, Atascadero Tulare (Springfield) R.D. #1, Box 88, Paso Robles Eldorado R.D. Box 173, Templeton Box 356, Murphys (Bear Mtn. Ranch) 1121 National Avenue, National City (Santa Ysabel)		
	Chaides, Frank	1523 Pine Street, Paso Robles (Adelaide District)		
	Dunham, Marion and Charles Ritchie.	Route #1, Box 198, Templeton (Dover Canyon)		
	Flores, Juan C	1109 Limekiln Road, Hollister Box 80, Fort Seward		

Route #1, Box 197-B, Paso Robles

Star Route, Orosi

CALIFORNIA (continued)

California (con't.): R.D. Route #1, Box 187, Templeton 310. Gates, Leroy 311. Griswold, A. O. & Son Route #2, Box 255, Springville 312. Galbreath, O. W...... Corbett Canyon Road, Arroyo Grande 313. Glenbrook Charcoal Route #1, Box 196, Templeton (York Mtn. Road) 314. Guerero, Jose...... Santa Margarita 315. Linder, Reynold..... 100 Oakmore, Tulare (Yokohl Valley) 316. Maduena, Juan..... 2630, Riverside Avenue, Paso Robles

317. McGee & Son.....

318. Walker, Everett E.....

¹ Towns in parenthesis show plant location,

² Manufactures briquettes.

³Idle in 1961.

⁴Did not report 1961 production.

⁵ New in 1962.

⁶ Plant operated in 1961, but individual plant data unavailable.

BRIQUETTE PRODUCERS IN THE UNITED STATES, 1961

(This list may not include all producers and is subject to change as plants are sold or moved and as new plants are constructed.)

State, name, and producer No.

See footnotes page 28.

Post office address1

NORTHEAST

Connecticut: 1. Park, B. Ripley	North Stonington
Maine: 2. Jaeger Co.	P. O. Box 429, 56 Sweden Street Cari- bou (Fort Kent)
Pennsylvania: 3. Humphrey Charcoal Corp	P. O. Box 45, Brookville (Fort Barnett)
4. Indian Hill Charcoal Co.	Laceyville
West Virginia: 5. Roseville Charcoal & Mfg. Co	Box 1188, Zanesville, Ohio (Bentree and Swiss)
SOUTHEAST	r
Florida: 6. Industrial Carbon Division, Cabot Corp	P. O. Box 137, Gainesville Box 777, Dunnellon
Georgia: 8. Rome Charcoal Co., Inc	P. O. Box 2233, W. 14th Street, Rome
North Carolina: 9. Black Panther Insecticide Co	Box 690, Bragg Street, Sanford Riverside Drive, Asheville
South Carolina: 11. T. S. Ragsdale Co., Inc	P. O. Box 38, Lake City
Virginia: 12. Imperial Briquet Corp	Kenbridge 22nd & Cary Streets, Richmond
LAKE	
Michigan: 14. Cliffs Dow Chemical Co	Wright Street, Marquette Iron Mountain (Kingsford)
Minnesota: 16. Rum River Charcoal Co	Isanti
Wisconsin: 17. Berwind Fuel Co	Box 173, Waupaca

State, name, and producer No.

CENTRAL

19. 20. 21. 22.	Cupples Co	7800 Bohomme, St. Louis (Salem) Galena Box 653, Branson P. O. Box 1033, Louisville, Ky. (Belle) 400 E. Carrie Street, St. Louis (Meta) Kansas City (Meta)
	Magic Star Charcoal Co	P. O. Box 14, New Lexington
	SOUTHERN	
Alabam 25. 26.	na: Coosa Charcoal Co., Inc Fancher, Wiley	P. O. Box 73, Rockford Route #1, Sardis
28.	as: Arkansas Charcoal Co Baron Charcoal Co Crossett Chemical Co.	Paris Route #2, Vian, Okla. (Gentry) P. O. Box 271, Crossett
Louisia 30.	na: Home Charcoal Co., Inc	P. O. Box 814, Alexandria
	sippi: Black Creek Charcoal Co Dizzy Dean Enterprises, Inc.²	Route #5, Lexington Pachuta
Oklahor 33.	ma: Western Barbecue Supply Co., Inc	Box 111, Sallisaw
Tennes	see: Forest Products Chemical Co	Box 6745, Hollywood Station, 2753 Chelsea Avenue, Memphis
	Hickory Charcoal Co., Inc. ² Lewis, Herman	2519 Cherry, NE, Knoxville 3813 Nathanial Road, Knoxville (Hunts-ville)
37. 38.	Plateau, Inc	P. O. Box 441, Cookeville 2611 West End Avenue, Nashville (Lyles-Wrigley)
Texas:		
39. 40.	Campfire Charcoal Co., Inc	Navasota 3810 Westheimer Road, Houston (College Station)
41.	Goebel Charcoal Co	111-113 W. 2nd Street, Smithville (Mul-
43.	Lone Star Charcoal Co	doon) P. O. Box 546, Quitman Route #10, Box 120, Tyler P. O. Box 142, Marshall
See	footnotes page 28.	

OTHER WEST

40			
K			

45.	Chetopa Charcoal Co	Chetopa
46.	Javhawk Charcoal Co	Chetopa

Montana:

47. Big Bear, Inc..... Pablo

Washington:

48. Western Charcoal Corp. 2423 1st Street, Seattle (Renton)

CALIFORNIA

California:

50. Fort Seward Hardwood Mfg. Co...... Box 80, Fort Seward

¹ Towns in parenthesis show plant location.

² New in 1962.

APPENDIX C

Map 1--Charcoal Producers in the United States

Map 2--Charcoal Briquets Producers in the United States

